

# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL PRELIMINARY EXAMINATION REPORT (PCT Article 36 and Rule 70)

Applicant's or agent's file reference <b>P 16495WO</b>	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. <b>PCT/EP 03/03201</b>	International filing date ( <i>day/month/year</i> ) <b>27.03.2003</b>	Priority date ( <i>day/month/year</i> ) <b>27.03.2002</b>
International Patent Classification (IPC) or both national classification and IPC <b>H04L12/24</b>		
Applicant <b>LIGHTMAZE AG</b>		

  

<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 6 sheets, including this cover sheet.</p> <p><input type="checkbox"/> This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of    sheets.</p>
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<p>3. This report contains indications relating to the following items:</p> <ul style="list-style-type: none"> <li>I    <input checked="" type="checkbox"/> Basis of the opinion</li> <li>II   <input type="checkbox"/> Priority</li> <li>III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</li> <li>IV <input type="checkbox"/> Lack of unity of invention</li> <li>V   <input checked="" type="checkbox"/> Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</li> <li>VI <input type="checkbox"/> Certain documents cited</li> <li>VII <input type="checkbox"/> Certain defects in the international application</li> <li>VIII <input type="checkbox"/> Certain observations on the international application</li> </ul>
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Date of submission of the demand  <b>27.10.2003</b>	Date of completion of this report  <b>18.08.2004</b>
Name and mailing address of the international preliminary examining authority:  <div style="display: flex; align-items: center;"> <div>             European Patent Office - P.B. 5818 Patentlaan 2              NL-2280 HV Rijswijk - Pays Bas              Tel. +31 70 340 - 2040 Tx: 31 651 epo nl              Fax: +31 70 340 - 3016           </div> </div>	Authorized Officer  <b>van der Meulen, E-J</b>  Telephone No. +31 70 340-3437



**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/EP 03/03201

**I. Basis of the report**

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

**Description, Pages**

1-11 as originally filed

**Claims, Numbers**

1-18 as originally filed

**Drawings, Sheets**

1/3-3/3 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
  - ☐ the language of publication of the international application (under Rule 48.3(b)).
  - ☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).
3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:
- ☐ contained in the international application in written form.
  - ☐ filed together with the international application in computer readable form.
  - ☐ furnished subsequently to this Authority in written form.
  - ☐ furnished subsequently to this Authority in computer readable form.
  - ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
  - ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.
4. The amendments have resulted in the cancellation of:
- ☐ the description, pages:
  - ☐ the claims, Nos.:
  - ☐ the drawings, sheets:

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5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

*(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

6. Additional observations, if necessary:

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Yes: Claims	3-12,16-17
	No: Claims	1,2,13-15,18
Inventive step (IS)	Yes: Claims	3-6
	No: Claims	1,2,7-18
Industrial applicability (IA)	Yes: Claims	1-18
	No: Claims	

2. Citations and explanations

**see separate sheet**

**Re Item V**

**Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1 The following document is referred to in this communication:

D1: HARRIS C D: "Bridging the network management gap: how element managers can streamline SONET network management and provide a migration path for broadband management" COMPUTERS AND COMMUNICATIONS, 1995., CONFERENCE PROCEEDINGS OF THE 1995 IEEE FOURTEENTH ANNUAL INTERNATIONAL PHOENIX CONFERENCE ON SCOTTSDALE, AZ, USA 28-31 MARCH 1995, NEW YORK, NY, USA, IEEE, US, PAGE(S) 219-225 , XP010149384 ISBN: 0-7803-2492-7

2 INDEPENDENT CLAIM 1

2.1 The present application does not meet the criteria of Article 33(1) PCT, because the subject-matter of claim 1 is not new in the sense of Article 33(2) PCT.

Document D1 discloses a method for managing a network, especially an optical network (page 219, left-hand column, lines 5-21), including a plurality of nodes which are interconnected in an arbitrary topology so as to be capable of carrying traffic between selected nodes (implicitly disclosed by the use of SONET technology), comprising the steps of:

- providing a supervisory network by means of supervisory channels between the nodes ("DCC" on page 220, right-hand column, lines 1-5);
- providing a node manager which is comprised of one or more software modules in each node ("Network Element Layer" on page 220, left-hand column, lines 10-13);
- establishing supervisory connections over one or more supervisory channels between selected nodes through which the node manager communicates with other node managers in other nodes (page 220, right-hand column, lines 1-5);
- providing a node module in each node manager that provides an interface to the hardware settings of the respective node ("functions and views specific to the NE" on page 220, left-hand column, lines 10-13);
- providing a master module in at least one node manager ("GNE" on page 220,

right-hand column, lines 7-11);

- establishing of supervisory connections over one or more supervisory channels between the selected nodes through which the master module communicates with the node modules (page 220, right-hand column, lines 7-12);
- amending and/or monitoring of hardware settings in selected nodes with the respective node module of the node ("NE configuration management", "multi-vendor equipment support" and "inventory management" on page 221, right-hand column, lines 38, 44 and 51);
- controlling of the amendments carried out by the node modules and/or processing of the monitored hardware settings by the master module (page 220, right-hand column, lines 7-12 and page 221, right-hand column, lines 38, 44 and 51)

Since all features of claim 1 are known in combination from document D1, the subject-matter of claim 1 is not new (Article 33(2) PCT).

### 3 INDEPENDENT CLAIM 13

- 3.1 System claim 13 comprises features corresponding to the features of method claim 1. Therefore, the above arguments with respect to novelty of claim 1 apply mutatis mutandis to claim 13. Consequently, the subject-matter of claim 13 is not new (Article 33(2) PCT).

### 4 DEPENDENT CLAIMS 2-12, 14-18

- 4.1 The additional features of claim 2 are also disclosed by document D1 (see page 221, left-hand column, lines 1-4)

Therefore, the subject-matter of claim 2 is not new (Article 33(2) PCT)

- 4.2 The subject-matter of claim 3 differs from that of document D1 in that it includes automatic selection of an active element manager among a number of element managers replicated in the managed nodes.

The subject-matter of claim 3 is therefore new (Article 33(2) PCT).

The problem to be solved by the present invention may be regarded as providing more flexibility in topology changes in the network without affecting the management network.

The solution to this problem proposed in claim 3 of the present application is considered as involving an inventive step (Article 33(3) PCT) because the additional feature of claim 3, in combination with those of claims 1 and 2, is not

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disclosed in its present form in any of the documents cited in the search report nor suggested by these documents.

Although the prior art document D2 shows a method for automatic election of a representative node within a communications network, there is no hint to using this method for network element management and D2 would only be combined with the disclosure of D1 with the use of ex post facto analysis.

Therefore, the subject-matter of claim 3 is inventive (Article 33(3) PCT).

- 4.3 Claims 4-6 are dependent on claim 3 and as such also meet the requirements of the PCT in respect of novelty and inventive step (Article 33(2) and (3) PCT).
- 4.4 Dependent claims 7-12 do not contain any features which, in combination with the features of claims 1 or 2, meet the requirements of the PCT in respect of inventive step (Article 33(3) PCT).
- 4.5 Dependent claims 14-18 do not contain any features which, in combination with the features of any claim to which they refer, meet the requirements of the PCT in respect of novelty and/or inventive step (Article 33(2) and (3) PCT).